

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : National Phase Entry of PCT/EP2004/011360
Applicant : MASSELINK et al
Filed : April 3, 2006
TC/A.U. :
Examiner :

Docket No. : 3367-102
Customer No. : 6449
Confirmation No.:

INFORMATION DISCLOSURE STATEMENT

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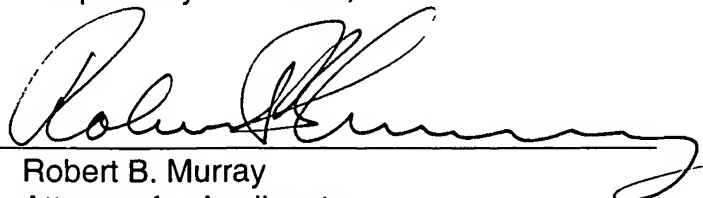
Sir:

In compliance with applicants duty of disclosure under 37 C.F.R. 1.56, enclosed is a copy of the International Search Report in the corresponding international application. References 1-2 and 12 — 14 are noted in the International Search Report and copies of the references are provided herewith for Examiner's review. Also enclosed is an English translation of an office action which issued in the priority German application. Reference No. 2 corresponds to Reference No. 12 listed in this IDS (see 1449).

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 02-2135.

Respectfully submitted,

By



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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				<i>Complete if Known</i> 10/574512	
				Application Number	New Application
				Filing Date	April 3, 2006
				First Named Inventor	MASSELINK et al
				Group Art Unit	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code. ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached. AB indicates that only an English language abstract is attached.

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NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²	
	4.	W. T. Masselink and Yia-Chung Chang, "Theory of the Exciton Bound to an Isoelectronic Trap in GaP," Phys. Rev. Lett. 51, 509-512 (1983)		
	5.	F. A. Kish, F. M. Steranka, D. C. DeFevere, D. A. Vanderwater, K. G. Park, C. P. Kuo, T. D. Osentowski, M. J. Peanasky, J. G. Yu, R. M. Fletcher, D. A. Steigerwald, M. G. Craford, and V. M. Robbins: "Very high-efficiency semiconductor wafer-bonded transparent-substrate (Al _x Ga _{1-x}) _{0.5} In _{0.5} P/GaP light-emitting diodes", Appl. Phys. Lett. 64, 2839-41 (1994)		
	6.	N. F. Gardner, N. F. Gardner, H. C. Chui, E. I. Chen, M. R. Krames, J-W. Huang, F. A. Kish, S. A. Stockman, C. P. Kocot, T. S. Tan, and N. Moll: "1.4x efficiency improvement in transparent-substrate (Al _x Ga _{1-x}) _{0.5} In _{0.5} P light-emitting diodes with thin (≥ 2000Å) active regions", Appl. Phys. Lett. 74, 2230-32 (1999)		
	7.	W. T. Masselink, and Martin Zachau: "In _{0.35} Ga _{0.65} P light-emitting diodes grown by gas-source molecular beam epitaxy", Appl. Phys. Lett. 61, 58-60 (1992)		
	8.	F. Hatami, W. T. Masselink, L. Schrottke, J. W. Tamm, V. Talalaev, C. Kristukat, and A. R. Goni: InP quantum dots embedded in GaP: "Optical properties and carrier dynamics", Phys. Rev. B 67, 85306-14 (2003)		
	9.	Goni et al, "Electronic Structure of self-assembled InP/GaP quantum dots from high-pressure photoluminescence", Physical Review, B, THE AMERICAN PHYSICAL SOCIETY, vol. 67 pgs. 075306-1- 075306-5, 2003.		
	10.	W. T. Masselink, F. Hatami, G. Mussler, and L. Schrottke: "InP quantum dots in (100) GaP: Growth and luminescence", Materials Science in Semi-conductor Processing 4, 497-501 (2001) (Proceedings of the International Conference on Materials for Advanced Technologies (ICMAT 2001), 1-6 July 2001, Singapore)		
	11.	F. Hatami, G. Mussler, M. Schmidbauer, L. Schrottke, H.-Y. Hao, H. T. Grahn, and W. T. Masselink, "Optical emission from ultrathin strained type-II InP/GaP quantum wells", Appl. Phys. Lett. 79, 2886-8 (2001).		
	12.	Hatami et al., "Radiative recombination from InP quantum dots on (100) GaP", APPLIED PHYSICS LETTERS, vol. 78, no. 15, 9 April 2001, pgs. 2163-2165.		
	13.	Walter et al., "Room-temperature continuous photopumped laser operation of coupled InP quantum dot and InGaP quantum well InP-InGaP-In(AlGa)P-InAlP heterostructures", APPLIED PHYSICS LETTERS, vol. 79, no. 13, 24 September 2001, pgs. 1956-1958.		
	14.	Micic et al., "Highly efficient band-edge emission from InP quantum dots", APPLIED PHYSICS LETTERS, vol. 68, no. 22, 27 May 1996, pgs. 3150-3152.		

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